FLORIDA ATLANTIC UNIVERSITY

COURSE CHANGE REQUEST
Undergraduate Programs

Department N/A

College Wilkes Honors College

UUPC Approval 3/27/23
UFS Approval
SCNS Submittal
Confirmed
Banner Posted
Catalog

***Current* Course Prefix and Number**	PHY 2048L	***Current* Course Title**	Honors General Physics Lab 1

*Syllabus must be attached for **ANY** changes to current course details. See Template. Please consult and list departments that may be affected by the changes; attach documentation.*

Change title to:

Change prefix

From: **To:**

Change course number

From: **To:**

Change credits*

From: **To:**

Change grading

From: **To:**

Change WAC/Gordon Rule status**

Add ☐ **Remove** ☐

Change General Education Requirements***

Add ☐ **Remove** ☐

*See Definition of a Credit Hour.

**WAC/Gordon Rule criteria must be indicated in syllabus and approval attached to this form. See WAC Guidelines.

***GE criteria must be indicated in syllabus and approval attached to this form. See Intellectual Foundations Guidelines.

Change description to:

Change prerequisites/minimum grades to:
PHY 2048 or PHY 2053 with a minimum grade of "C"

Change corequisites to:
PHY 2048 or PHY 2053

Change registration controls to:

Please list existing and new pre/corequisites, specify AND or OR and include minimum passing grade (default is D-).

Effective Term/Year for Changes:	Fall 2023	**Terminate course? Effective Term/Year for Termination:**	

Faculty Contact/Email/Phone Yaouen Fily / yfily@fau.edu / 561-299-0879

Approved by	***Date***
Department Chair Miguel Ángel Vázquez	3/23/23
College Curriculum Chair Rachel Corr	3/23/23
College Dean Julia Carlos	3/23/23
UUPC Chair Ehlyn Williams	3/27/23
Undergraduate Studies Dean Dan Mecroff	3/27/23
UFS President	
Provost	

Email this form and syllabus to mjenning@fau.edu seven business days before the UUPC meeting.

SYLLABUS
PHY 2048L
Honors General Physics Lab 1
1 credit

Course Description
Experiments in Newtonian Mechanics comprise this course. Specific emphasis in this first course will be on statistical analysis of the experimental data, including precision, accuracy, and confidence intervals for the mean.

Instructional Method
In person.

Prerequisites/Corequisites
Prerequisite: Minimum grade of C in either PHY 2048 or PHY 2053.
OR Corequisite: PHY 2048 or PHY 2053.

Course Objectives/Student Learning Outcomes
The course objectives are the students to demonstrate their expertise in performing the required physics experiments and to be able to determine whether the experimental outcomes are in statistical agreement with the theoretical agreement.

Course Evaluation Method
We will follow the order of the outline at the end of this syllabus. You must attend the laboratory experiment to get credit for the laboratory report. An unexcused absence may count as a zero. Several such absences will lower your grade and my result in failure. There will be no make-up laboratory experiments. See attendance policy below for excused absences, such as illness or University related activity.

Course Grading Scale
93 to 100 – A, 90 to 92 – A-, 87 to 89 – B+, 83 to 86 – B, 80 to 82 – B-, 77 to 79-C+, 73 to 76 – C, 70 to 72 –C-, 67 to 69 – D+, 63 to 66 – D, 60 to 62, D-, 0 to 59 is an F.

Policy on Makeup Tests, Late Work, and Incompletes
There will be no Make-Up Laboratory Experiments. Please note that students may not be penalized for absences due to participation in University-approved activities, including athletic or scholastics teams, musical and theatrical performances, and debate activities. Reasonable accommodation must also be made for students participating in a religious observance. Also, note that grades of Incomplete (“I”) are reserved for students who are passing a course but have not completed all the required work because of exceptional circumstances.

Report Outline

- Title of the Experiment, Experiment Number and Date of the Experiment. (Title Sheet is the first page.)
- Objective: State the Objective(s) of the Experiment.
- Experimental Procedure and Data Collection. (Follow the description in the laboratory manual.)
- Calculation and Analysis (Show all crucial calculations. For repeated calculations show sample calculations. (Pay attention to the Statistical Analysis in Appendix A). Be sure to number your steps and questions as shown in the laboratory. Check your calculations! The value of collected data is often ruined in miscalculation and erroneous analysis.
- Discussion: Briefly summarize your findings. Cite any difficulties and explain how you dealt with them. If your measurement of a parameter is significantly different from that of the accepted value, consider redoing the measurement. If you think the discrepancy is with the observer or the equipment, prove it.
- Raw Data: Put your raw data and notes at the end of the report. For each group the raw data must be signed before leaving the laboratory. Groups having unsigned data will receive a deduction of 10 points.

Additional notes:

- Put the Group Leader's name first followed by the names of the other group members along with the Date of the Experiment and the Section Number.
- Each group must choose a Group Leader that 1) preferably will live on Campus and 2) will be responsible for submitting the Group Report. Get permission from me if the group is to exceed 3. Each group member should be sure to have a copy of the data before leaving the laboratory.
- Do not become a specialist. Review all parts of the report before incorporating them in the Group Report. Each group member is responsible for reviewing the report and the subsequent grade. In the past Groups often met together in such places as the Library. In any case, you should be sure to meet in some fashion and to contribute to the collection of the data as well as the writing of the report. Do not depend on the Group Leader to do all of the work in assembling and writing of the report.

Policy on the Recording of Lectures

Students enrolled in this course may record video or audio of class lectures for their own personal educational use. A class lecture is defined as a formal or methodical oral presentation as part of a university course intended to present information or teach students about a particular subject. Recording class activities other than class lectures, including but not limited to student presentations (whether individually or as part of a group), class discussion (except when incidental to and incorporated within a class lecture), labs, clinical presentations such as patient history, academic exercises involving student participation, test or examination administrations, field trips, and private conversations between students in the class or between a student and the lecturer, is prohibited. Recordings may not be used as a substitute for class participation or class attendance and may not be published or shared without the written consent of the faculty member. Failure to adhere to these requirements may constitute a violation of the University's Student Code of Conduct and/or the Code of Academic Integrity.

Attendance Policy

Students are expected to attend all their scheduled University classes and to satisfy all academic objectives as outlined by the instructor. The effect of absences upon grades is determined by the instructor, and the University reserves the right to deal at any time with individual cases of non-attendance. Students are responsible for arranging to make up work missed because of legitimate class absence, such as illness, family emergencies, military obligation, court-imposed legal obligations or participation in University-approved activities. Examples of University-approved reasons for absences include participating on an athletic or scholastic team, musical and theatrical performances and debate activities. It is the student's responsibility to give the instructor notice prior to any anticipated absences and within a reasonable amount of time after an unanticipated absence, ordinarily by the next scheduled class meeting. Instructors must allow each student who is absent for a University-approved reason the opportunity to make up work missed without any reduction in the student's final course grade as a direct result of such absence.

Counseling and Psychological Services (CAPS) Center

Life as a university student can be challenging physically, mentally and emotionally. Students who find stress negatively affecting their ability to achieve academic or personal goals may wish to consider utilizing FAU's Counseling and Psychological Services (CAPS) Center. CAPS provides FAU students a range of services – individual counseling, support meetings, and psychiatric services, to name a few – offered to help improve and maintain emotional well-being. For more information, go to http://www.fau.edu/counseling/

Disability Policy

In compliance with the Americans with Disabilities Act Amendments Act (ADAAA), students who require reasonable accommodations due to a disability to properly execute coursework must register with Student Accessibility Services (SAS) and follow all SAS procedures. SAS has offices across three of FAU's campuses – Boca Raton, Davie and Jupiter – however disability services are available for students on all campuses. For more information, please visit the SAS website at www.fau.edu/sas/.

Code of Academic Integrity

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the university mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the university community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see University Regulation 4.001.

Students of the Wilkes Honors College are also expected to abide by the College's Academic Honor Code, see http://www.fau.edu/honors/academics/honor-code.php.

Note on Honors Distinction

This course is an Honors course. It differs substantially from its non-Honors counterpart. The course fulfills the mission of the Honors College to develop in students the capacity to combine knowledge from different fields (e.g., Physics and Biology) and apply it to the creation of original research. The course employs Honors-level assessment standards designed to prepare students for work on their Honors Thesis. Students will be expected to articulate their reasoning clearly in speech and in writing, to combine knowledge from different fields, to deploy the ideas learned in the class in their own field of study, and to develop the critical attitudes and skills needed for self-directed learning.

Course Outline

1. TIMING AND ERROR ANALYSIS
2. ACCELERATION
3. FORCES AND VECTORS
4. FRICTION
5. AIR RESISTANCE
6. HOOKE'S LAW AND SPRING FORCES
7. MECHANICAL ENERGY CONSERVATION
8. MOMENTUM AND COLLISION
9. STATIC EQUILIBRIUM
10. ROTATIONAL INERTIA
11. SIMPLE HARMONIC MOTION
12. STANDING WAVES